

REMARKS

In response to the Final Office Action mailed on January 28, 2004, Applicants traverse the rejections and respectfully request reconsideration. The pending claims include distinguishing limitations not taught or suggested by any of the cited references. Therefore, Applicants request allowance of the pending claims.

The following remarks address the rejections of claims 1-20 and 22-36 as set out in the Final Office Action.

Rejections of Claims 1, 3, 7-9, 10, 12, 16-18 and 22-26 under 35 U.S.C. § 102

The Examiner has rejected claims 1, 3, 7-9, 10, 12, 16-18 and 22-26 under 35 U.S.C. § 102(e) based on the teachings of Baugher, et al., (U.S. Patent 6,101,549).

Indeed, the Baugher reference is directed toward transmitting data from a sending host to a receiving host. However, neither Baugher nor any other cited reference teaches or suggests a technique of controlling a data stream that includes steps of intercepting a request signal, generating a control signal, and providing the control signal via processing performed at a single network node as in the claimed invention. Baugher performs intercepting a PATH message at a first network node (i.e., router 58) and redirecting the PATH message to a second network node (i.e., proxy host 62) that generates an RESV message. Thus, Baugher does not disclose every limitation in claim 1.

More particularly, as cited by the Office Action, Baugher discloses (see FIG. 3 as cited by the Examiner) a system in which sending host 50 generates a PATH message. Sending host 50 encodes a destination address in the PATH message to direct the PATH message to receiving host 52. Prior to reaching host 52, router 58 intercepts the PATH message generated by sending host 50.

Instead of forwarding the PATH messages to receiving host 52, router 58 redirects the PATH message to proxy host 62. In response to receiving the PATH message, the proxy host 62 generates and transmits an RESV message back to router 58 which, in turn, forwards the RESV message to sending host 50. Thus, the proxy host 62 generates the RESV message on behalf of the receiving host 52 that otherwise would have generated the RESV message for the sending host 50.

The Office Action includes an incorrect assessment of the cited prior art. For example, the Office Action states that "the proxy handler intercepts messages from the router that are destined and addressed for a receiving host." This statement directly contradicts the Baugher reference which states at column 4 lines 31-33 (as cited by the Office Action) that "router 58 is configured to intercept PATH messages sent by sending host 50 and to redirect the PATH messages to proxy host." Thus, router 58 does the intercepting and redirecting, not the proxy handler in proxy host 62.

The Office Action contends that claim 1 reads on the functionality disclosed by Baugher. Applicants respectfully disagree and traverse the rejection of claim 1 because claim 1 includes the limitation that the network node supporting interception of the request message is the same network node generating the control signal and providing the control signal to the request signal source. In other words, according to the invention as in claim 1, there is no redirecting the request signal to a remotely located network node such as a proxy node that services the request as in Baugher. Instead, according to the invention, the node intercepting the request signal generates and provides the control signal for the request signal source. This is a clear distinction between claim 1 and the cited references. For example, Baugher involves intercepting a message at a first network node (i.e., the router 58) and redirecting the intercepted PATH message to a second network node (i.e., proxy host 62). The

claimed invention involves generating and providing the control signal from the same node that intercepts the request signal.

As pointed out by the Office Action, both the claimed invention and Baugher relieve an originally intended target computer from having to generate the control signal. However, the further distinguishing limitations of the claimed invention (e.g., the node intercepting the request signal generates and provides the control signal for the request signal source) provide additional advantages not afforded by Baugher or any other of the cited references. For example, interception and generation of the control signal at the same network node as in the claimed invention reduces network traffic because the node performing interception of the request signal also generates the control signal. There is no need to redirect the request signal to another network node. According to Baugher, a router intercepting the request signal must modify the intercepted message and forward it over the network (thus, creating extra network traffic) to the proxy host at another network node via a complex proxy protocol. Baugher is less reliable because the forwarded messages are more likely to be lost when transmitted over the network to the proxy host.

Additionally, interception and generation of the control signal at the same network node as in the claimed invention increases response time of providing the control signal to the requesting source because there is no delay associated with sending the request message over a potentially congested network to another network node as in Baugher. Moreover, the claimed invention eliminates a need to provide extra hardware and software resources for a remotely located proxy host as in Baugher.

Consequently, it is respectfully submitted that the technique as recited in claim 1 is not taught or suggested by the cited prior art. If the rejection of claim 1 is to be maintained, Applicants respectfully request that it be pointed out with

particularity where the cited prior art discloses a technique of intercepting a request signal and servicing the request signal from the node performing the interception. The cited Baugher reference neither supports nor teaches such a mode.

For the reasons stated above, claim 1 is patentably distinct and advantageous over the cited prior art, and the rejection of claim 1 under 35 U.S.C. §102(e) should be withdrawn. Accordingly, allowance of claim 1 and corresponding dependent claims 2-9 and 22-23 is respectfully requested.

Claim 10 includes similar limitations (e.g., an agent process intercepts a request signal otherwise destined for the host computer as well as use of a destination address to transmit the request signal to the host computer to which the request signal was originally destined) as recited in claim 1 above. Thus, claim 10 includes limitations not found in the Baugher reference. For applicable reasons as discussed above, claim 10 and corresponding dependent claims 11-18 and 24-26 are patentably distinct over the cited prior art.

Claim 19 includes similar limitations (e.g., a controller intercepts a request signal otherwise destined for the host computer as well as use of a destination address to transmit the request signal to the host computer to which the request signal was originally destined) as recited in claim 1 above. Thus, claim 19 includes limitations not found in the Baugher reference. For applicable reasons as discussed above, claim 19 and corresponding dependent claim 20 are also patentably distinct over the cited prior art.

Claim 27 includes similar limitations (e.g., a software agent at a given network node intercepts a request signal and also generates and provides a control signal) as recited in claim 1 above. Thus, claim 27 includes limitations not found in the Baugher reference. For applicable reasons as discussed above,

claim 27 and corresponding dependent claims 28-36 are also patentably distinct over the cited prior art.

Applicants would like to point out that the pending dependent claims further distinguish the claimed invention over the cited prior art. For example, claim 6 recites "performing an operation that decides whether to contact the host computer for assistance in response to the request signal, a result of the operation directing the data communications device not to contact the host computer in response to the request signal." The Office Action rejects claim 6 under 35 U.S.C. § 103(a) based on the teachings of Baugher, et al., (U.S. Patent 6,101,549).

It is well accepted that for a claim to be rendered obvious, at least its isolated components must be suggested by the prior art. More specifically, to establish a prima facie case of obviousness under 35 U.S.C. § 103(a), all of the following criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally known to one of ordinary skill in the art, to modify the reference or to combine the teachings of the references. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to combine the references and reasonable expectation of success must be found in the prior art, and not based on an Applicant's disclosure. In re Vaeck, 947 F.2d 488, 20USPQ2d 1438 (Fed.Cir. 1991).

Evidence of a suggestion, teaching or motivation to combine may flow from the prior art references, the knowledge of one of ordinary skill in the art, or in some cases, from the nature of the problem to be solved. The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing of obviousness must be clear and particular. -

Without other evidence of a suggestion, teaching or motivation in the prior art, and simply taking the inventor's disclosure as a blueprint to defeat patentability is the essence of hindsight. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 U.S.P.Q. 543, 547 (Fed.Cr. 1985).

Applicants traverse the rejection of claim 6 for a number of reasons. First, the Office Action admits that "Baugher does not disclose that the agent performs an operation that decides whether to contact the host computer for assistance in response to the request signal, a result of the operation directing the data communications device not to contact the host computer in response to the request signal." Thus, the Office Action fails to cite one or more references teaching or suggesting every claim element. The rejection is therefore improper because the Examiner has the burden of showing a prima facie case of obviousness.

More specifically, the Office Action fails to cite actual evidence of a teaching or suggestion in the cited art of the limitation in claim 6. Instead, the Office Action merely points out that it would be beneficial for Baugher to perform the operation as in claim 6. The question of patentability does not hinge on whether the claimed invention can be advantageously applied to a prior art reference. Instead, patentability hinges on whether the prior art reference teaches or suggests the claimed invention. The Office Action points out an advantage not afforded by Baugher and a reason for patentability of claim 6 over the prior art. For example, omitting a step of contacting a receiving host reduces network traffic as well as frees up resources associated with receiving that would otherwise be employed to respond to generate and processes messages. The cited Baugher reference neither teaches nor suggests such a mode of operation. Applicants respectfully request that the Examiner point out with particularity where the cited reference teaches or suggests the limitation as in claim 6 and 15 if the rejection is to be maintained.

Regarding claim 22, the Office Action states that the request signal source in the claimed invention is akin to a router at an intermediate node shown in Figure 3 of Baugher. This interpretation of Baugher directly contradicts the Office Action's analysis of Baugher with respect to claim 1 in which the "request signal" of the claimed invention is likened to the PATH message generated by sending host 50. The "request signal source" is likened to the sending host 50 in Baugher. Sending host 50 is not disposed at an intermediate node. Baugher therefore does not teach or suggest the limitation as in claim 22. Applicants respectfully request withdrawal of the final rejection or a consistent interpretation of Baugher to reject the claimed invention as defined by claims 1 and corresponding dependent claim 22. Accordingly, Applicants respectfully request allowance of claim 22 as well as claim 24 including similar limitations.

Regarding claims 25 and 26, the Office Action states for claim 1 that the request signal source is sending host 50 in figure 3 of Baugher. Inconsistent with the analysis for claim 1, the Office Action states for the rejection of claim 25 and 26 that router 54 or 58 in Baugher is now considered the request signal source. Based on the interpretation of Baugher in light of claim 1, the Office Action fails to cite a passage in Baugher in which the request signal travels along a path exclusive of a path associated with the data stream. In other words, the request signal in Baugher follows a path from sending host 50 to router 54. This is the same path that a data stream must follow from sending host 50 to receiving host 52. Thus, the Office Action fails to point out passages in Baugher citing the limitations in claims 25 and 26. Applicants respectfully request withdrawal of the final rejection or request that the Examiner provide a consistent interpretation of Baugher to reject the claimed invention as defined by claims 1 and corresponding dependent claims 25 and 26. Accordingly, Applicants respectfully request allowance of claim 25 as well as claim 26.

Independent claim 27 includes further distinctions over Baugher. First, claim 27 recites a routing mechanism disposed at a network node between a source and recipient of a data stream. The routing mechanism at the intermediate network node transmits the request signal to a remote computer which would respond with control information. The software agent in the network node intercepts and service the request signal. Thus, the request signal according to the invention is never received by the remote host computer. In Baugher, the router sends a request message received by the proxy handler. Thus, there is no servicing a request signal in the same node from which the request message was generated.

Claim 28 further distinguishes the invention in claim 27 over Baugher. For example, claim 28 recites that the routing mechanism which generates the request signal at the intermediate network node originally intends the recipient of the data stream to receive the request signal. As discussed in claim 27, the request signal is intercepted by the software agent at the same network node as the routing mechanism. According to Baugher, the router 54 or 58 forwards a PATH message to the proxy handler. In no case do the routers 54 or 58 in Baugher generate a request signal intended for receipt by the receiving host 52. Thus, claim 28 is not anticipated by Baugher.

Claim 29 further distinguishes the invention in claim 27 over Baugher. For example, claim 29 recites that the routing mechanism which generate the request signal at the intermediate network node originally intends the source of the data stream to receive the request signal. As discussed for claim 27, the request signal is intercepted by the software agent at the same network node as the routing mechanism. According to Baugher, the router 54 or 58 forwards a PATH message to the proxy handler. The router 54 or 58 do not generate a request signal intended for receipt by the sending host 50. Thus, claim 28 is not anticipated by Baugher.

Claim 30 recites that the request signal generated by the routing mechanism at an intermediate node between the source and recipient includes a request for permission to drop data packets. The request to drop data packets is sent from the intermediate node to the source of the data stream. The Office Action rejects the claimed invention under 35 U.S.C. § 103(a) by citing the RSVP protocol. Applicants submit that the Office Action fails to cite actual evidence of a teaching or suggestion in the cited art of the limitation in claim 30. Instead, the Office Action makes a broad, illogical leap that mere use of the RSVP protocol in Baugher somehow renders the technique in claim 30 obvious. The Office Action further points out that it would be beneficial for Baugher to perform the operation of intercepting a request signal including a request to drop data packets as in claim 30. The question of patentability does not hinge on whether the claimed invention can be advantageously applied to a prior art reference as is the case in the Final Office Action. Instead, patentability hinges on whether the prior art reference teaches or suggests the claimed invention. First, note that the Baugher reference discusses use of the PATH and RESV messages. Details of the RSVP protocol are discussed in RFC 2205. Neither of these message types has to do with dropping data packets. Thus, the Office Action fails to point out a reference (or references) that teach or suggest every claim limitation as in claim 30. Note again that the showing of obviousness must be clear and particular and the rejection point out a teaching of every claim limitation. The rejection is therefore improper and should be withdrawn. The invention as in claim 30 alleviates the data stream source from having to process the request for permission to drop data packets which is not taught or suggested by Baugher or any other cited reference. Applicants request that the Examiner specifically point out in the Baugher reference where he teaches or suggests this technique.

Claim 31 further distinguishes the invention as in claim 30 over Baugher. Baugher does not teach or suggest "at the software agent, receiving

configuration information from the remote host computer indicating when it is acceptable to drop data packets of the data stream; and at the software agent, utilizing the received configuration information from the remote host computer to provide control information to the routing mechanism how to transfer the data stream." For example, the claimed invention enables the software agent at the same node as the routing mechanism to receive configuration information when it is acceptable to drop packets. The software agent in the same node as the routing mechanism can then provide information when it is acceptable to drop data packets. This advantage is not afforded by Baugher. Baugher does not even discuss dropping of data packets so there would be no need to receive configuration information.

Claim 32 further distinguishes the invention as in claim 31 over Baugher. Baugher does not teach or suggest "in response to the routing mechanism dropping data packets of the data stream, generating and transmitting a message from the software agent to the remote host computer indicating when data packets of the data stream have been dropped." For example, the claimed invention provides notification to the remote host computer from the software agent at the routing mechanism when data packets of a data stream have been dropped. Nowhere in Baugher does he discuss dropping of data packets so the reference also does not teach providing a message when data packets have been dropped.

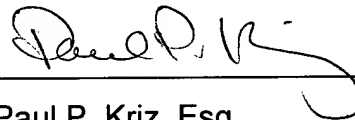
Conclusion

In view of the foregoing remarks, all claims of the subject application are in condition for allowance. A notice to this affect is respectfully requested. If the Examiner believes, after this Response, that the Application is not in condition for allowance, the Examiner is respectfully requested to call the Applicants' Representative at the number below.

Applicants hereby petition(s) for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-0901.

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned Attorney at (508) 366-9600, in Westborough, Massachusetts.

Respectfully submitted,



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